EXPLANATION OF DATA

The information presented here was compiled on deaths, which came under the jurisdiction of the Medical Examiner during the calendar year 1999. The role of alcohol, drugs, and firearm use in violent deaths is emphasized in the report. Health agencies, safety councils, and lawmakers may find these statistics useful. If the quality of life in King County is to be improved perhaps this report can serve as the basis for change.

The geographic area served by the Medical Examiner includes all 2,130 square miles of King County, bounded by Pierce County to the south, Snohomish County to the north, Kittitas and Chelan Counties to the east and Puget Sound to the west. In 1999 the King County population was estimated to be 1,677,000[1]. Included within King County are 38 cities and towns including Seattle, the state's largest city. Also within King County are Vashon Island, two major airports and several colleges and universities, all coming under the Medical Examiner's jurisdiction. In King County more than twenty hospitals as well as major trauma centers serve the entire Pacific Northwest region.

Demographics in this report are summarized from individual cases under jurisdiction of the Medical Examiner, and presented here in aggregate form. The location (Nearest Incorporated City to the Fatal Incident, Table 1-8, page 18) represents the location of the incident, to the nearest city, not the residential address of the individual. Each manner (category) of death is subdivided into the various sub-groupings (methods) appropriate to that manner, which together form a more detailed description of the cause and manner of death.

The variables displayed in the tables such as race, gender, age, etc., have been selected as those most likely to assist and interest individuals using this data in assembling a profile of death statistics for 1999. According to 1999 Census estimates, racial distribution of King County is 83% white, 5% black, 10% Asian, 1% Native American and 1% other. Hispanic origin is a separate question from race in Census data and cannot be used to compare with Medical Examiner data. In addition, as emphasized in Table 1-9 on page 20, in 12% of Medical Examiner cases the incident leading to death occurred outside of King County and the decedent was probably not a resident of King County. Therefore, Medical Examiner figures cannot be directly compared to the racial distribution of King County residents. As a rough estimate, however, the only manner of death that varies from the racial distribution of the county by a large percentage is Homicide. A further discussion of these figures is found in the Homicide section on page 39.

[1] Washington State Office of Financial Management

Age groups are divided into youth and adult. The youth groups are infants (newborn to 11 months), toddlers (1-5 years), grade school (6-12 years), junior high (13-15 years), and high school (16-19 years). Adult age groups are in corresponding decades with the last being 90 years old or older.

Blood alcohol (ethanol) data included here represent the blood level at the time of death. Alcohol is metabolized at a rate of 0.015 to 0.018 grams percent per hour. Thus, if there is a significant survival interval, the blood alcohol at the time of death will be lower than at the time of incident. Consequently, blood alcohol tests are not performed in cases where death occurs more than twenty-four hours after the fatal injury. For these reasons, an unknown number of cases not tested or showing no blood alcohol may actually have had a measurable alcohol concentration at the time of the incident.

Three sections are included that review specific issues. Data are presented which highlights deaths due to drugs, firearms, and death among children and youth. The firearm data pertain to the victim because data relating to the shooter are not included in the Medical Examiner's investigation. On deaths among children and youth, the analysis focuses on violent, non-natural causes of death.

Data on natural deaths are included. However, these deaths due to natural causes are not representative of all natural deaths in King County. Natural deaths which are investigated by the Medical Examiner are those which occur suddenly and unexpectedly with no physician in attendance, or under suspicious circumstances. Such natural deaths comprise 34.9% of all deaths investigated by the Medical Examiner.

The "circumstances undetermined" category includes deaths in which the manner could not be clearly determined. In some cases, serious doubt existed as to whether the injury occurred with intent or as a result of an accident. In others, lack of witnesses or prolonged time between death and discovery precluded the accurate determination of the circumstances surrounding death. Moreover, it may be difficult to assess street drug or medication overdose deaths as showing enough features to reasonably determine the manner of death.

Those interested in obtaining more specific information should seek our assistance, as additional data are available and more specific analysis is possible.

MEDICAL EXAMINER CASES IN 1999

This report provides a summary of the raw data from the Medical Examiner's 1999 cases.

In 1999 there were an estimated 13,318 deaths in King County[2] (0.8% of a 1999 population estimate of 1,677,000). Of these deaths, 6,449 (48%) were reported to the Medical Examiner by medical and law enforcement personnel. Based on analysis of the scene and circumstances of death, and the decedent's medical history gathered by the medical investigators, the Medical Examiner Division assumed jurisdiction in 1,501 of these reported deaths, of which 29 were ultimately found to be non-human remains. Throughout the discussion of data that follows, except where stated, the non-human, cases are excluded. The number of applicable cases used in this report are 1,468 deaths.

Of note is that there were 4,948 deaths reported to the Medical Examiner in which jurisdiction was not assumed. The Medical Examiner's Office applies a strict interpretation of the legislative language "persons who die suddenly when in apparent good health and without medical attendance within thirty-six hours preceding death" (RCW 68.50). Jurisdiction is only assumed if both conditions (lack of medical care, apparent good health) apply, and there is no attending outside physician who has knowledge of the individual's natural disease condition, and is able to reasonably certify the death.

Autopsies were performed in 70% (1,033/1,468) of the jurisdictional deaths. Autopsies by a Medical Examiner pathologist were not performed in deaths where scene, circumstances, medical history, and external examination of the body provided sufficient information for death certification. In 1999 there were 239 such deaths, accounting for 16% (239/1,468) of the total deaths. There were 184 deaths (13%) which were certified by the attending private physician after review by and consultation with the Medical Examiner.

Several factors appear repeatedly in the unnatural deaths. Of all traffic fatalities in which tests were performed, 28% (44/160) tested positive for presence of alcohol (ethanol) in the blood. Firearms were the modal instrument of death in homicides and suicides, accounting for 58% (52/89) of the homicides and 48% (106/221) of the suicides. In recognition of the importance of safety devices in traffic accidents, Medical Examiner data indicate that of the 144 vehicle occupants who died, only 27% (39/144) were known to be wearing restraints. In 18 deaths involving motorcyclists, 61% (11/18) were known to be wearing helmets.

[2] Death certificates filed in King County.

The rest were either not wearing restraints or helmets, or the use of those items is not known. While the discussion here tends to depict the more violent types of death, the reader should be reminded that 35% (511/1,468) of Medical Examiner cases involve review and certification of natural deaths. Specific discussion and presentation of relevant tables regarding 1999 cases follow this brief summary.

Table 1-1 Deaths in King County and Medical Examiner Cases

CASES BY MANNER OF DEATH[3]		NUMBER OF DEATHS	
Accident Other	(A)	404	27.4%
Accident Traffic	(T)	200	13.6%
Homicide	(H)	89	6.0%
Natural	(N)	511	34.9%
Suicide	(S)	221	14.9%
Undetermined	(U)	43	2.9%
Total KCME general cases[4]		1,468	
Non-applicable cases where jurisdiction was assumed[5]		33	
Total KCME jurisdiction cases		1,501	
Total KCME general cases		1,468	
Deaths reported to KCME but no jurisdiction was assumed (NJA)		4,948	
All other deaths in King County not reported to KCME[6]		6,902	
ALL KING COUNTY DEATHS		13,318	

[3] The letters following each manner of death will be used in most tables throughout this report.

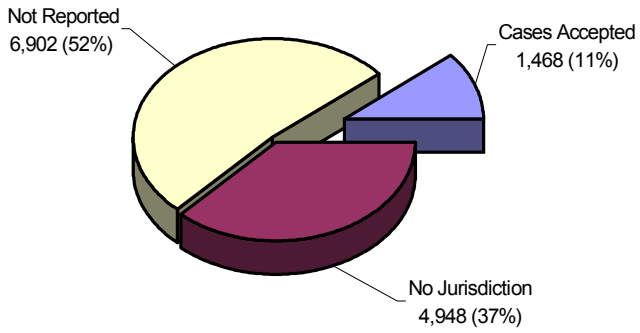
[4] This is the total that will be referred to throughout this report unless otherwise noted.

[5] Non-applicable includes (4) unidentified human remains cases and (29) non-human remains cases. The (4) unidentified human remains cases consist of 1 skull, 1 bone, 1 foot, and 1 human tissue.

[6] Estimated from Vital Statistics data

Graph 1-1 All King County Deaths with Medical Examiner Jurisdiction Shown

There were 13,318 deaths in King County in 1999.



Graph 1-2 Manner of Death for All Medical Examiner Jurisdiction Cases

Jurisdiction assumed in 1,501cases.

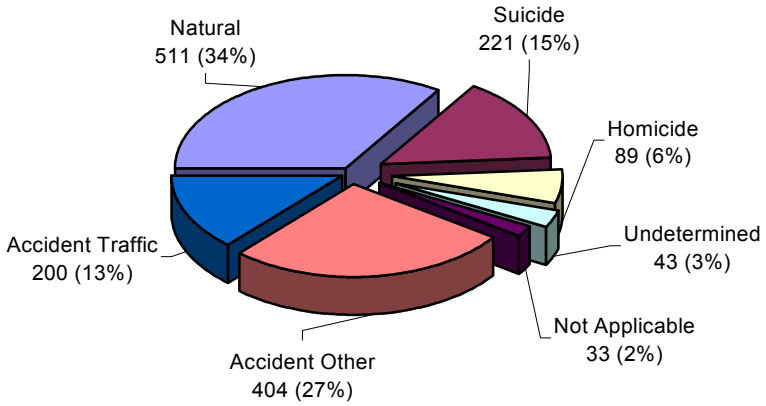
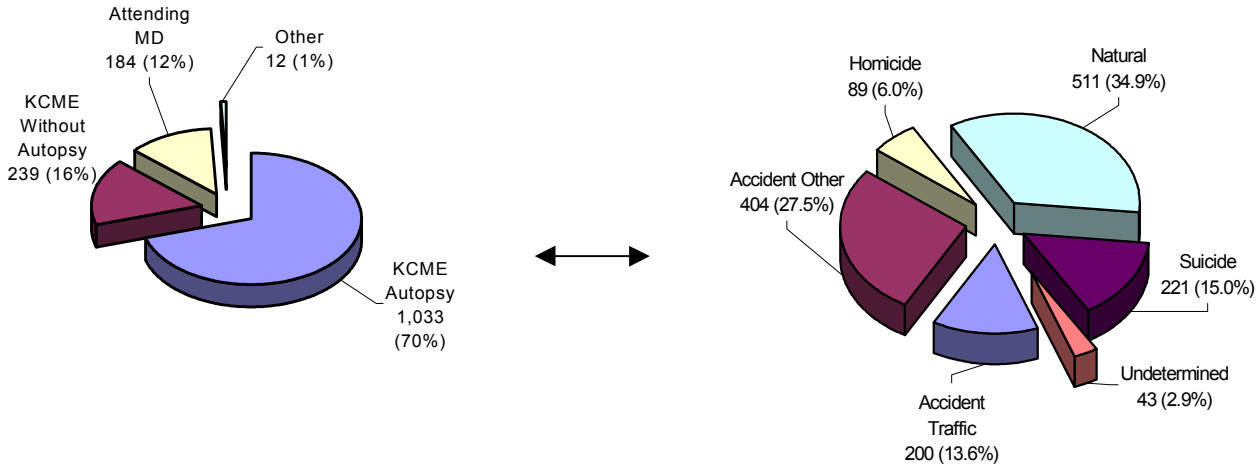


Table 1-2 Method of Certification and Manner of Death

CERTIFICATION	MANNER OF DEATH						TOTAL	PERCENT
	A	T	H	N	S	U		
KCME Autopsies	294	189	83	293	134	40	1,033	70%
KCME External Exams	32	6	0	115	86	0	239	16%
KCME Other[7]	0	3	6	1	1	1	12	1%
Attending Physician	78	2	0	102	0	2	184	13%
Total	404	200	89	511	221	43	1,468	

Graph 1-3 Method of Certification for All Medical Examiner Jurisdiction Cases



[7] Includes (2) presumed deaths and (10) cases were transferred out of county.

MANNER OF DEATH IN 1999
King County Medical Examiner General Cases

Table 1-3 Gender and Manner of Death

GENDER	MANNER OF DEATH						TOTAL	PERCENT
	A	T	H	N	S	U		
Male	277	144	63	347	163	30	1,024	69.8%
Female	127	56	26	164	58	13	444	30.2%
Total	404	200	89	511	221	43	1,468	

Graph 1-4 Gender and Manner of Death

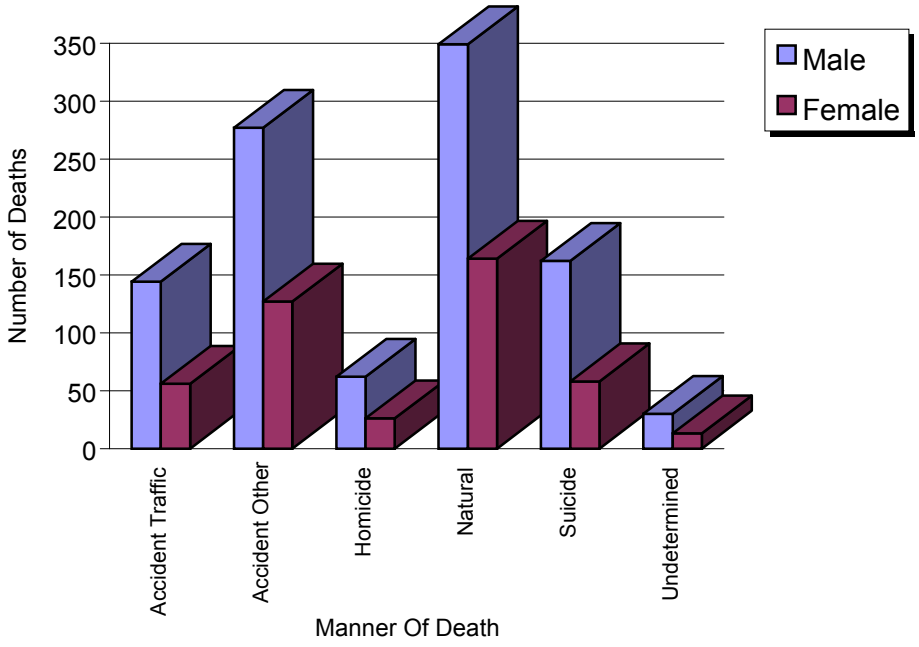


Table 1-4 Age and Manner of Death

AGE/GENDER	MANNER OF DEATH						SUB TOTAL	TOTAL	PERCENT
	A	T	H	N	S	U			
Under 1 year								21	1.4%
Male	*1*	*0*	*0*	*7*	*0*	*0*	*8*		
Female	*2*	*1*	*1*	*9*	*0*	*0*	*13*		
1 to 5 years								12	0.8%
Male	*5*	*0*	*1*	*2*	*0*	*2*	*10*		
Female	*2*	*0*	*0*	*0*	*0*	*0*	*2*		
6 to 12 years								8	0.5%
Male	*3*	*1*	*1*	*0*	*0*	*0*	*5*		
Female	*1*	*1*	*1*	*0*	*0*	*0*	*3*		
13 to 15 years								11	0.7%
Male	*2*	*3*	*0*	*0*	*0*	*1*	*6*		
Female	*1*	*2*	*2*	*0*	*0*	*0*	*5*		
16 to 19 years								61	4.2%
Male	*11*	*17*	*8*	*2*	*11*	*0*	*49*		
Female	*0*	*3*	*2*	*2*	*5*	*0*	*12*		
20 to 29 years								166	11.3%
Male	*37*	*36*	*20*	*7*	*22*	*3*	*125*		
Female	*10*	*9*	*3*	*10*	*7*	*2*	*41*		
30 to 39 years								191	13.0%
Male	*36*	*21*	*13*	*31*	*30*	*9*	*140*		
Female	*10*	*6*	*6*	*14*	*9*	*6*	*51*		
40 to 49 years								300	20.4%
Male	*69*	*26*	*14*	*72*	*33*	*6*	*220*		
Female	*23*	*7*	*6*	*27*	*14*	*3*	*80*		
50 to 59 years								215	14.6%
Male	*39*	*8*	*5*	*72*	*25*	*5*	*154*		
Female	*8*	*5*	*3*	*30*	*13*	*2*	*61*		
60 to 69 years								135	9.2%
Male	*12*	*10*	*0*	*61*	*17*	*4*	*104*		
Female	*4*	*8*	*2*	*14*	*3*	*0*	*31*		
70 to 79 years								152	10.4%
Male	*20*	*10*	*1*	*57*	*14*	*0*	*102*		
Female	*15*	*8*	*0*	*22*	*5*	*0*	*50*		
80 to 89 years								149	10.1%
Male	*34*	*9*	*0*	*33*	*9*	*0*	*85*		
Female	*30*	*4*	*0*	*28*	*2*	*0*	*64*		
90+ years								44	3.0%
Male	*8*	*2*	*0*	*2*	*2*	*0*	*14*		
Female	*21*	*2*	*0*	*7*	*0*	*0*	*30*		
Unknown								3	0.5%
Male	*0*	*1*	*0*	*1*	*0*	*0*	*2*		
Female	*0*	*0*	*0*	*1*	*0*	*0*	*1*		
Total	404	200	89	511	221	43		1468	

Table 1-5 Race and Manner of Death

RACE /GENDER	MANNER OF DEATH						SUB TOTAL	TOTAL	PERCENT
	A	T	H	N	S	U			
White								1,207	82.2%
Male	242	122	34	280	147	23	848		
Female	108	50	13	126	51	11	359		
Black								136	9.3%
Male	21	11	22	36	5	4	99		
Female	7	0	7	22	0	1	37		
Asian								80	5.4%
Male	10	9	3	18	10	1	51		
Female	6	4	4	10	4	1	29		
Native American								20	1.4%
Male	3	2	2	2	0	1	10		
Female	3	1	1	4	1	0	10		
Other								25	1.7%
Male	1	0	2	11	1	1	16		
Female	3	1	1	2	2	0	9		
Total	404	200	89	511	221	43		1,468	

Table 1-6 Marital Status and Manner of Death

MARITAL STATUS / GENDER	MANNER OF DEATH						SUB TOTAL	TOTAL	PERCENT
	A	T	H	N	S	U			
Never Married	127	78	43	143	63	13		467	31.8%
Male	*101*	*59*	*33*	*100*	*44*	*11*	*348*		
Female	*26*	*19*	*10*	*43*	*19*	*2*	*119*		
Married	101	65	24	119	72	9		390	26.6%
Male	*75*	*49*	*15*	*88*	*54*	*2*	*283*		
Female	*26*	*16*	*9*	*31*	*18*	*7*	*107*		
Divorced	79	27	12	128	60	14		320	21.8%
Male	*55*	*21*	*7*	*90*	*47*	*10*	*230*		
Female	*24*	*6*	*5*	*38*	*13*	*4*	*90*		
Widowed	70	20	0	74	14	0		178	12.1%
Male	*22*	*8*	*0*	*31*	*9*	*0*	*70*		
Female	*48*	*12*	*0*	*43*	*5*	*0*	*108*		
Unknown	27	10	10	47	12	7		113	7.7%
Male	*24*	*7*	*8*	*38*	*9*	*7*	*93*		
Female	*3*	*3*	*2*	*9*	*3*	*0*	*20*		
Total	404	200	89	511	221	43		1468	

Graph 1-5 Marital Status and Manner of Death

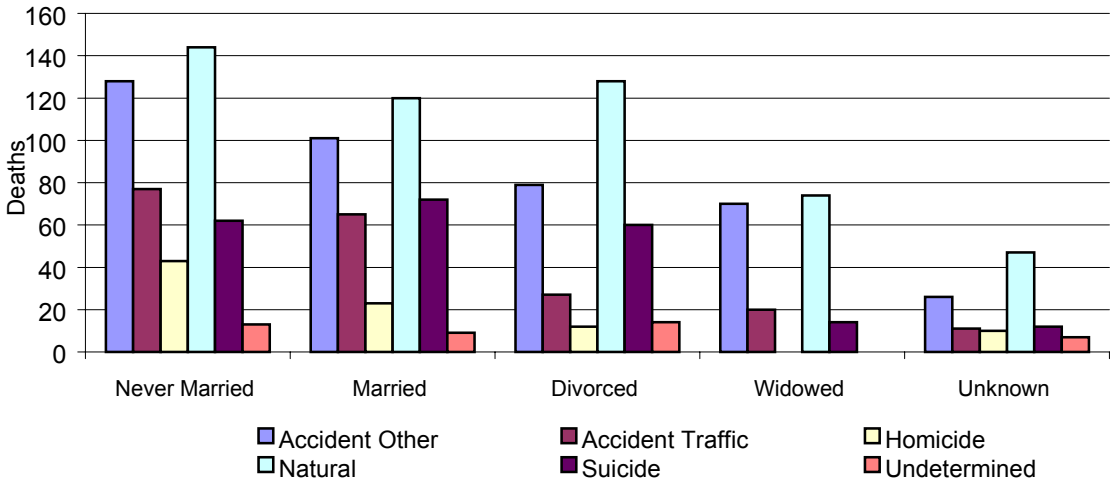


Table 1-7 Month and Manner of Death

MONTH	MANNER OF DEATH						TOTAL	PERCENT
	A	T	H	N	S	U		
Previous Year	3	1	1	7	0	2	14	1.0%
January	36	20	9	46	16	3	130	8.9%
February	27	13	6	41	18	3	108	7.4%
March	19	14	13	47	18	4	115	7.8%
April	39	9	7	40	13	1	109	7.4%
May	26	15	9	39	16	3	108	7.4%
June	43	14	10	35	21	5	128	8.7%
July	41	18	3	29	17	3	111	7.6%
August	34	23	4	40	21	3	125	8.5%
September	39	18	6	52	15	6	136	9.3%
October	37	20	4	39	26	3	129	8.8%
November	32	18	4	42	23	5	124	8.4%
December	28	17	13	54	17	2	131	8.9%
Total	404	200	89	511	221	43	1,468	

Graph 1-6 **Month and Manner of Death**

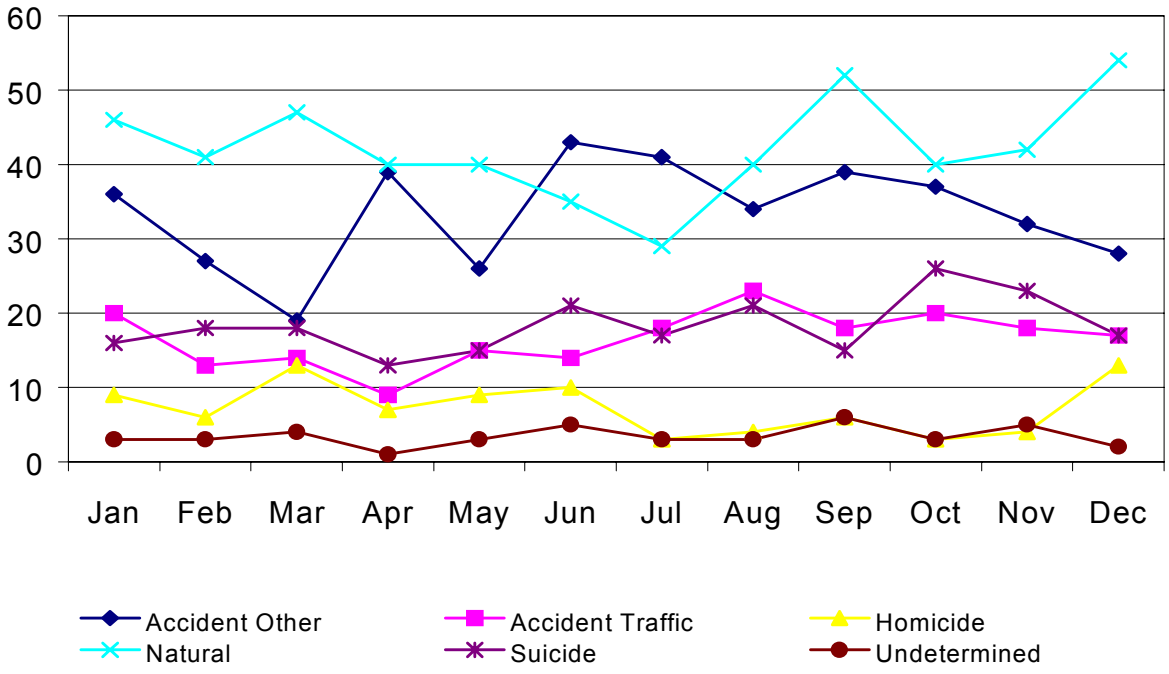


Table 1-8 Nearest Incorporated City to the Fatal Incident

CITY	MANNER OF DEATH					TOTAL	PERCENT
	A	T	H	S	U		
Algona	0	0	0	1	0	1	0.1%
Auburn	12	4	0	13	0	29	3.0%
Bellevue	19	3	0	9	2	33	3.5%
Black Diamond	3	1	0	1	0	5	0.5%
Bothell	4	5	1	1	1	12	1.3%
Burien	3	2	2	6	1	14	1.4%
Des Moines	3	1	0	3	0	7	0.7%
Duvall	2	1	0	2	0	5	0.5%
Enumclaw	4	0	0	2	0	6	0.6%
Fall City	0	6	0	1	0	7	0.7%
Federal Way	6	4	5	8	2	25	2.6%
Issaquah	8	0	2	8	0	18	1.9%
Kenmore	0	7	0	3	0	10	1.0%
Kent	10	6	1	18	1	36	3.8%
Kirkland	12	0	1	5	1	19	2.0%
Maple Valley	3	0	0	1	1	5	0.5%
Medina	1	0	0	1	0	2	0.2%
Mercer Island	1	0	0	0	1	2	0.2%
Normandy Park	2	0	0	1	0	3	0.3%
North Bend	4	5	0	2	0	11	1.2%
Pacific	0	0	0	1	1	2	0.2%
Redmond	11	2	2	3	0	18	1.9%
Renton	10	5	5	11	2	33	3.5%
SeaTac	5	4	1	2	0	12	1.3%
Seattle	215	33	55	93	22	418	43.7%
Shoreline	6	3	2	4	1	16	1.7%
Skykomish	0	3	0	0	0	3	0.3%
Snoqualmie	3	0	4	2	1	10	1.0%

Table 1-8 Nearest Incorporated City to the Fatal Incident (Cont…)

CITY	MANNER OF DEATH					TOTAL	PERCENT
	A	T	H	S	U		
Tukwila	3	6	1	1	3	14	1.5%
Vashon Island	1	2	0	0	0	3	0.3%
Woodinville	3	3	0	1	0	7	0.7%
Unincorporated King County	2	1	0	2	0	5	0.5%
Outside of King County	48	93	7	15	3	166	17.4%
Total	404	200	89	221	43	957	

OUT OF COUNTY CASES IN 1999

Within King County are several major hospitals and trauma centers that serve the entire Pacific Northwest and western United States. Consequently, there are numerous deaths each year where the incident leading to death occurred outside of King County. Because death occurred within King County, it comes under the jurisdiction of the King County Medical Examiner. In 1999 there were 178 deaths (12%) where the incident occurred out of county. Table 1-9 displays these deaths by incident location and manner.

Table 1-9 Fatal Incident Outside of King County

INCIDENT LOCATION	MANNER OF DEATH						TOTAL
	A	T	H	N	S	U	
Alaska	0	3	0	0	1	0	4
California	0	1	0	0	0	0	1
Idaho	3	0	0	0	0	0	3
Minnesota	0	1	0	0	0	0	1
Montana	2	0	0	0	0	0	2
Washington							
Kitsap County	7	9	0	2	4	1	23
Lewis County	3	6	0	0	1	0	10
Pierce County	9	18	3	2	3	0	35
Snohomish County	9	18	1	2	4	0	34
Thurston County	4	7	0	1	1	0	13
Other Counties	11	29	3	5	1	2	51
Outside the U.S.							
Turkey	0	1	0	0	0	0	1
Total	48	93	7	12	15	3	178